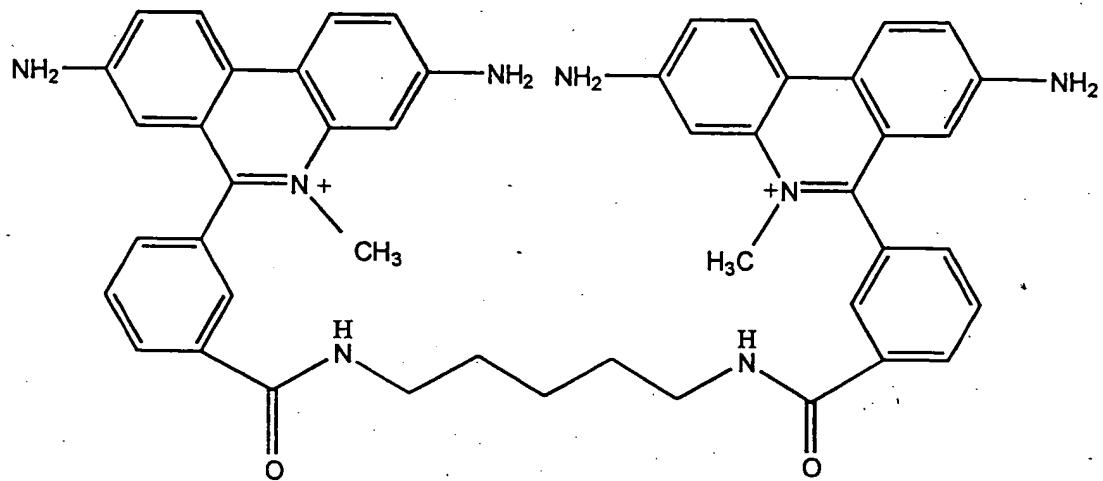
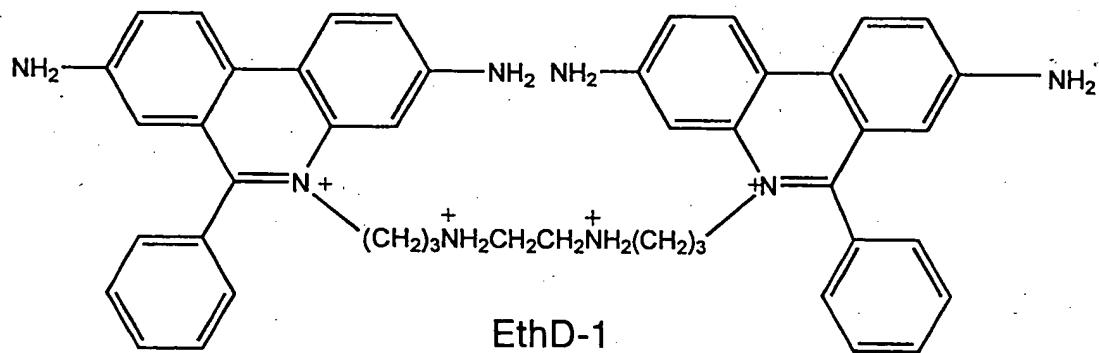


Figure 1



meta-EthD



EthD-1

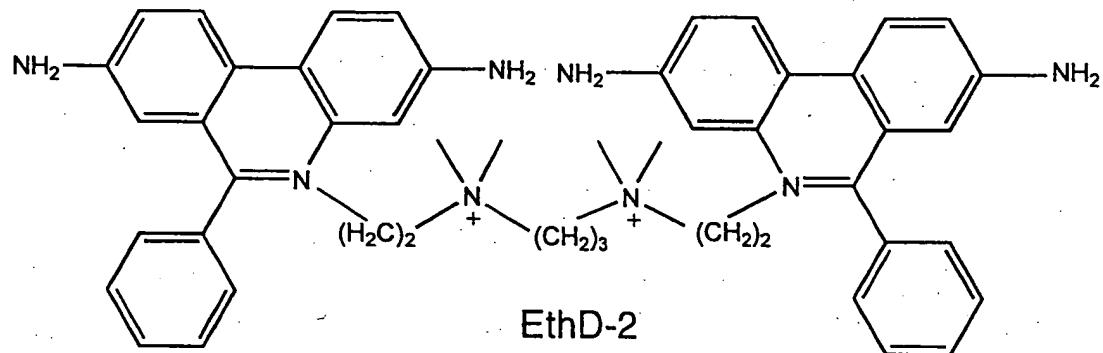


Figure 2

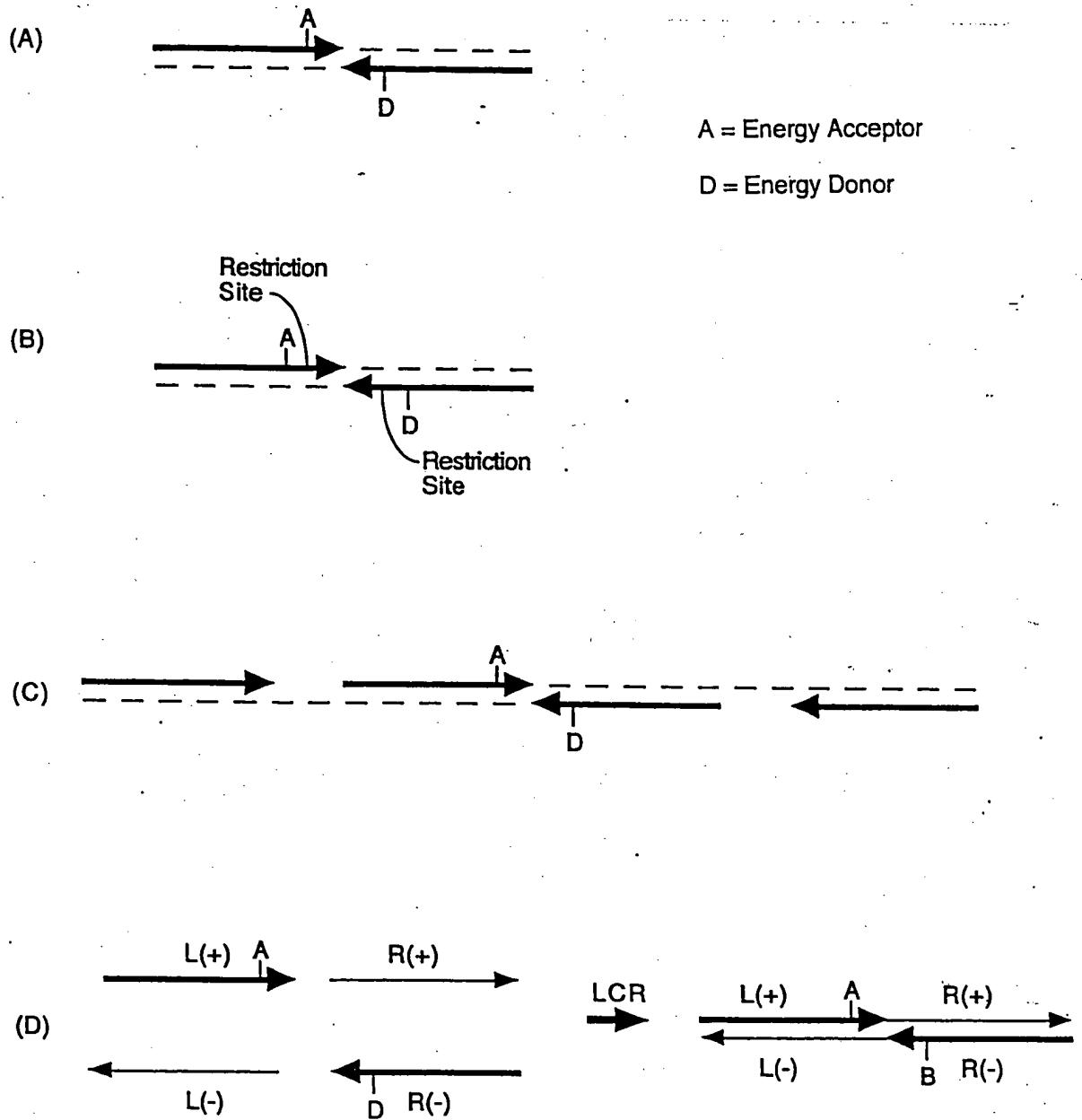


Figure 3

Target Sequence

— GCGACCTGCGAATGCTATGGATCAGGCTAGCCA —
— CGCTGGACGCTTACGATACCTAGTCCGATCGGT —

(A)

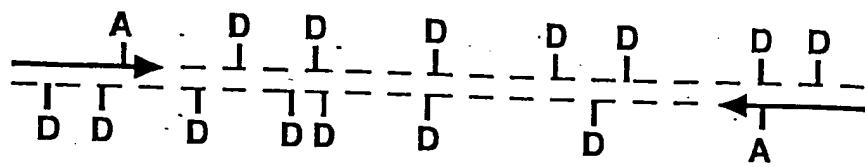
Donor
— GCGACCTGCGAATGCTATggatcaggctagcca
cgctggacgcttacgataCCTAGTCCGATCGGT
Acceptor

(B)

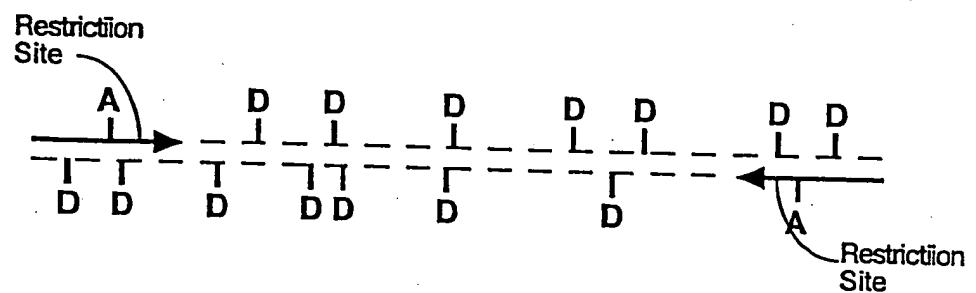
Donor
— GCGACCTGCGAATGCTATggatcaggctagcca
cgctggacgcttacgataacctAGTCCGATCGGT
Acceptor

Figure 4

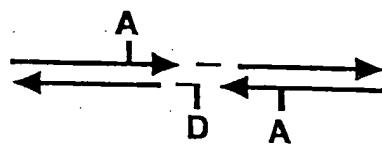
(A) PCR



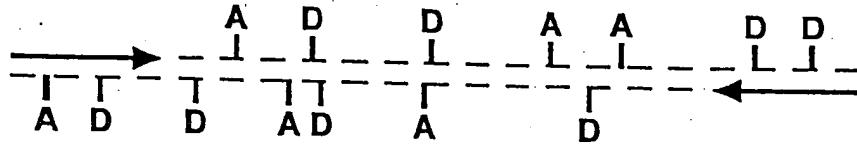
(B) SDA



(C) GAP-LCR



(D) PCR

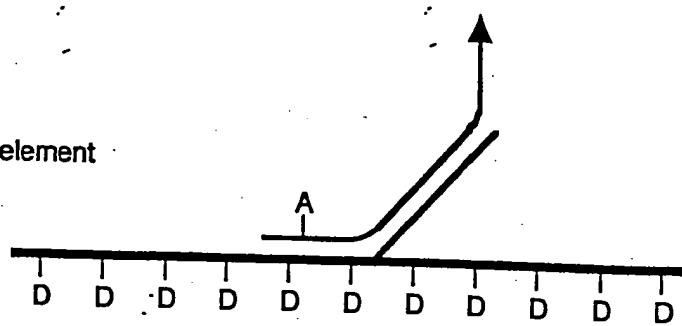


A = Energy Acceptor

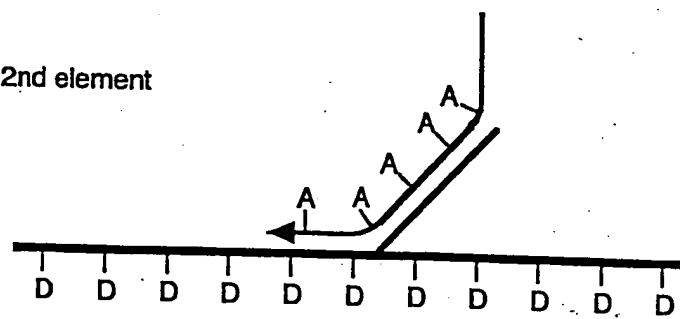
D = Energy Donor

Figure 5

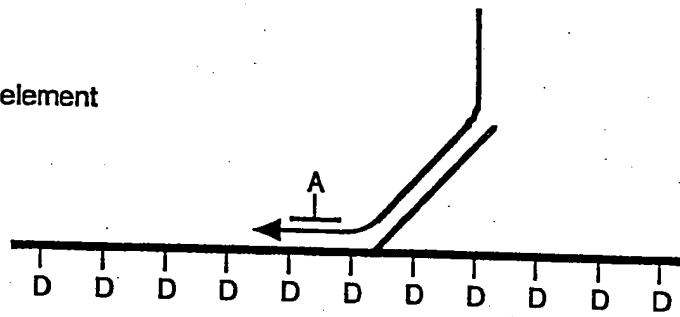
(A) Primer with 2nd element



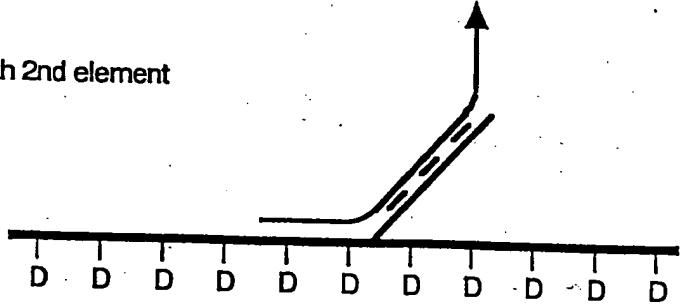
(B) Nucleotide with 2nd element



(B) Probe with 2nd element



(B) Intercalators with 2nd element



D = Energy Donor

A = Energy Acceptor

Figure 6

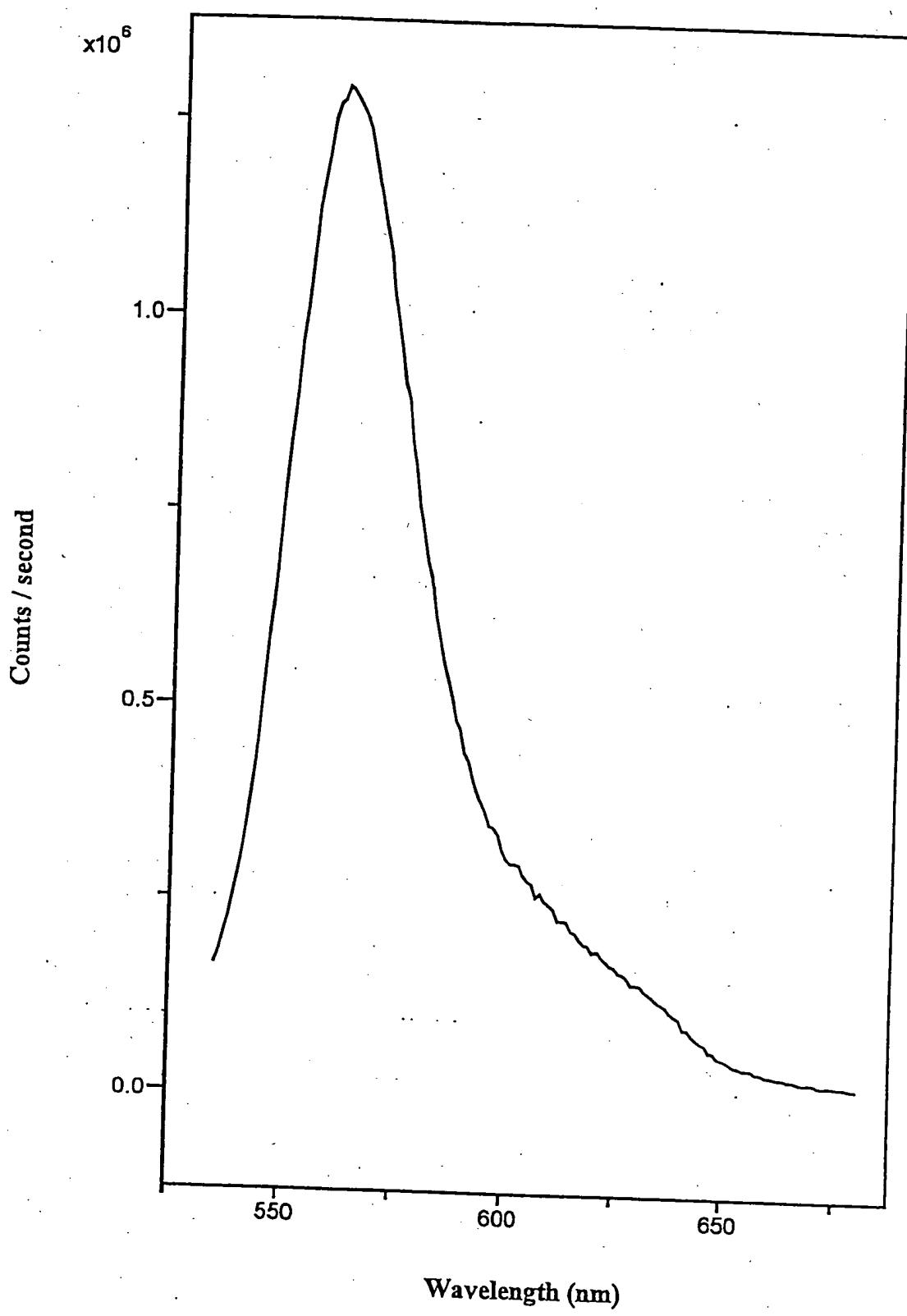


Figure 7

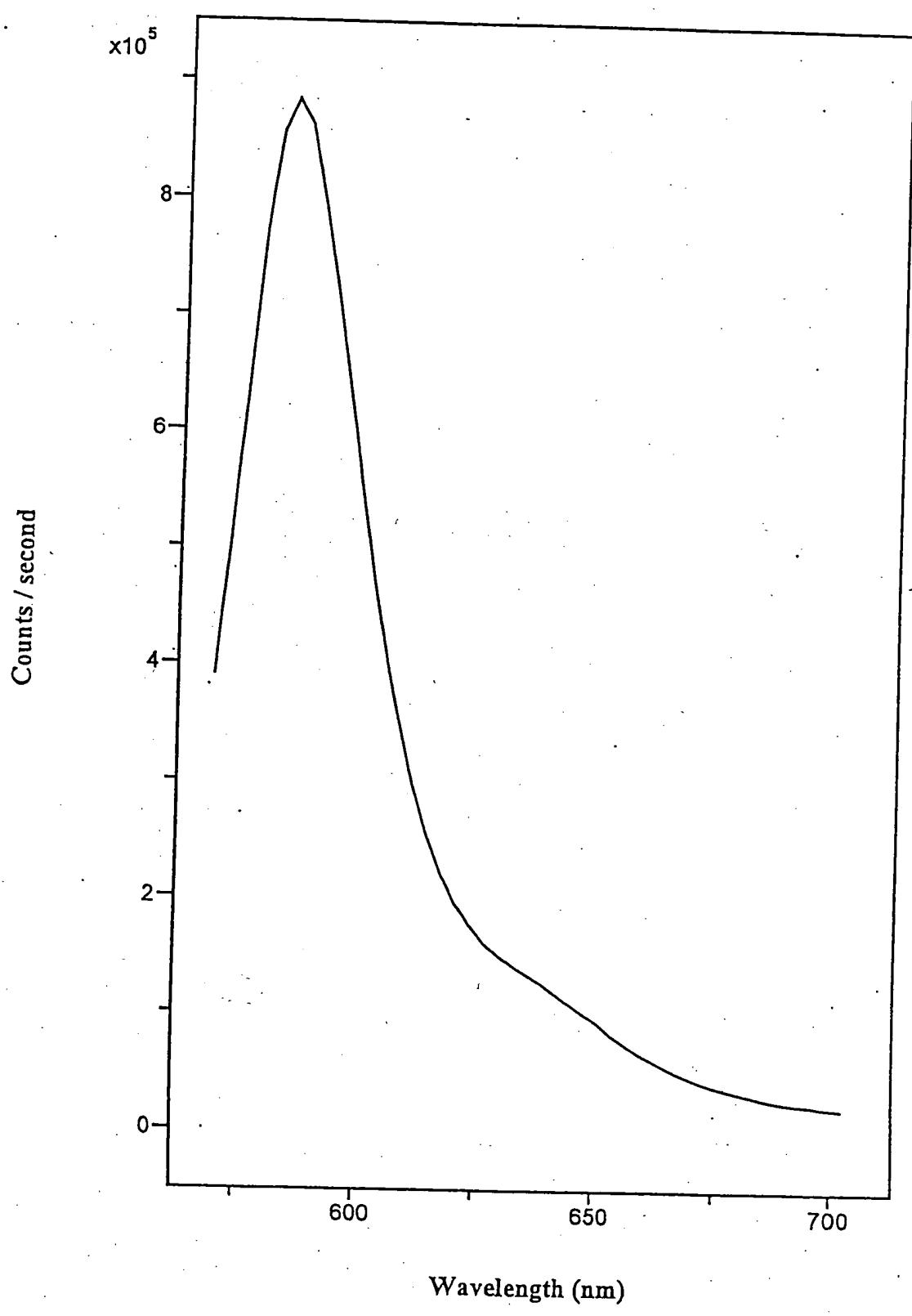


Figure 8

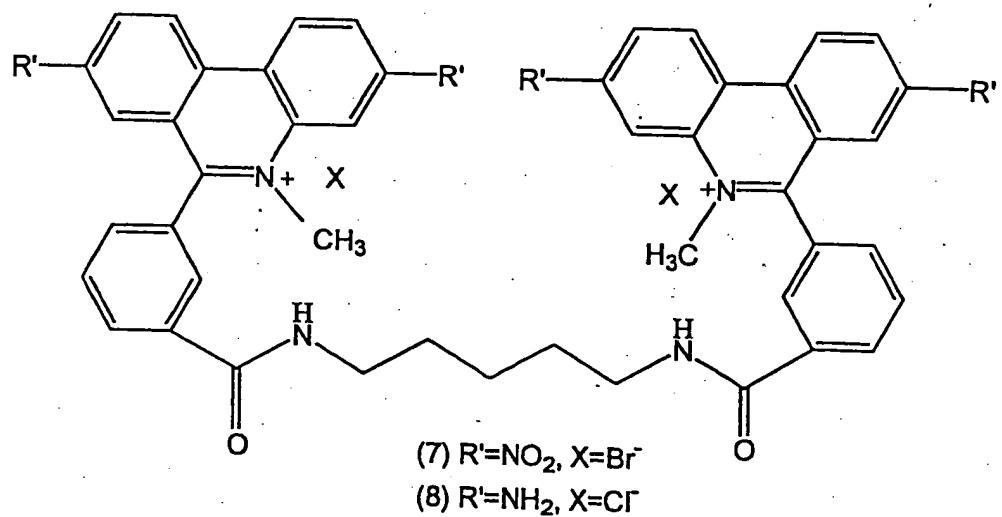
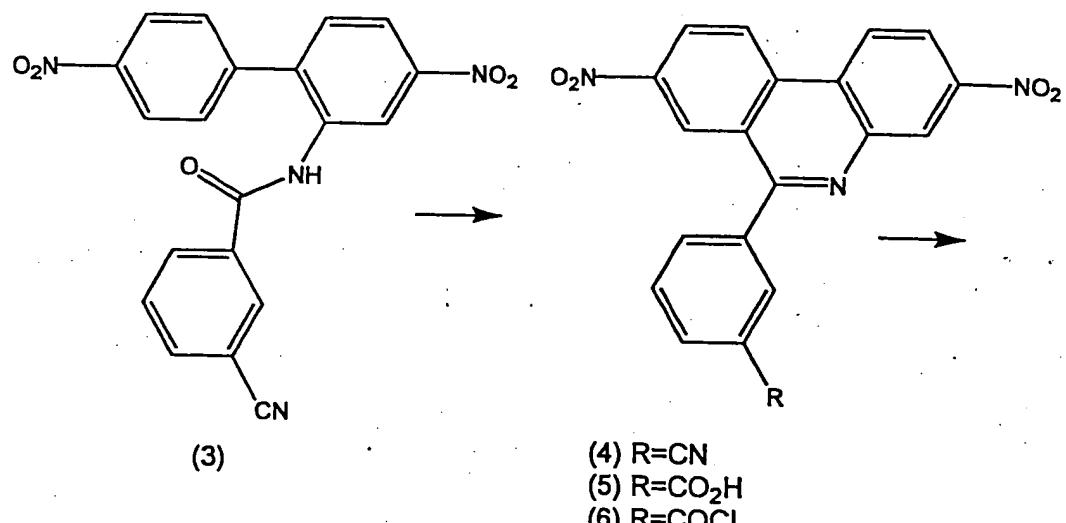
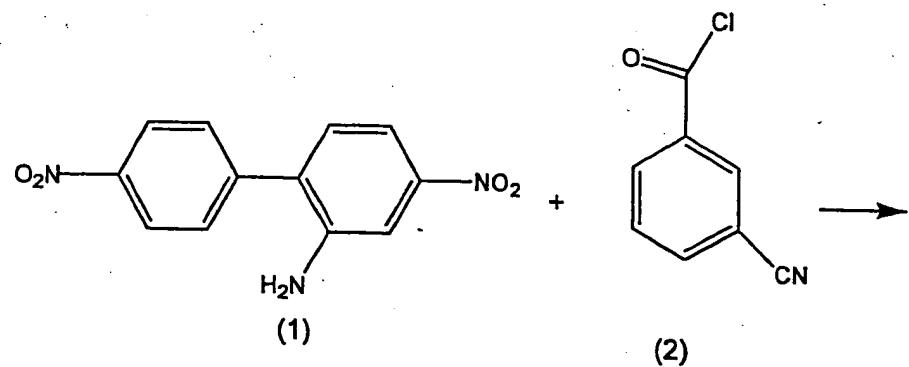
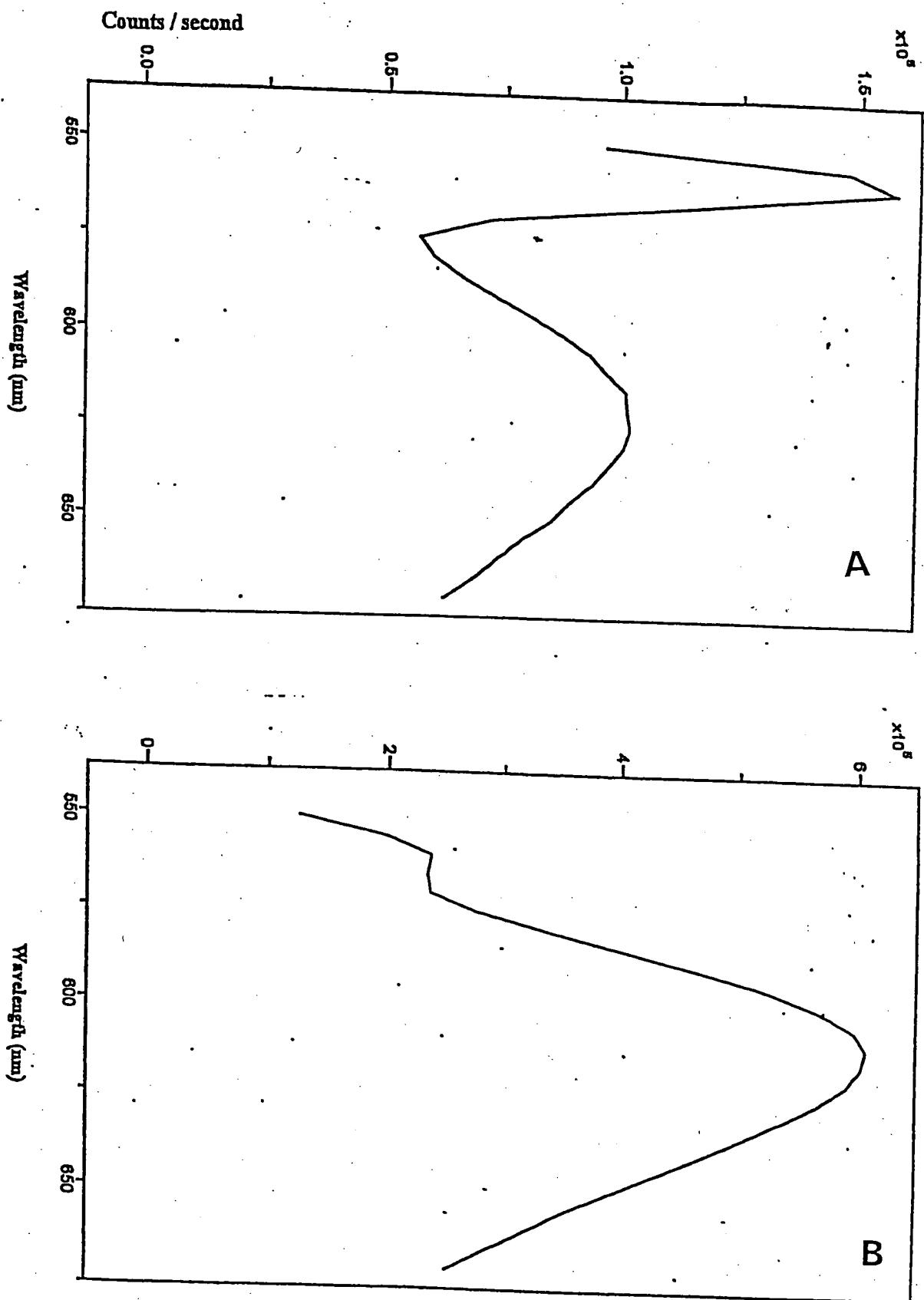
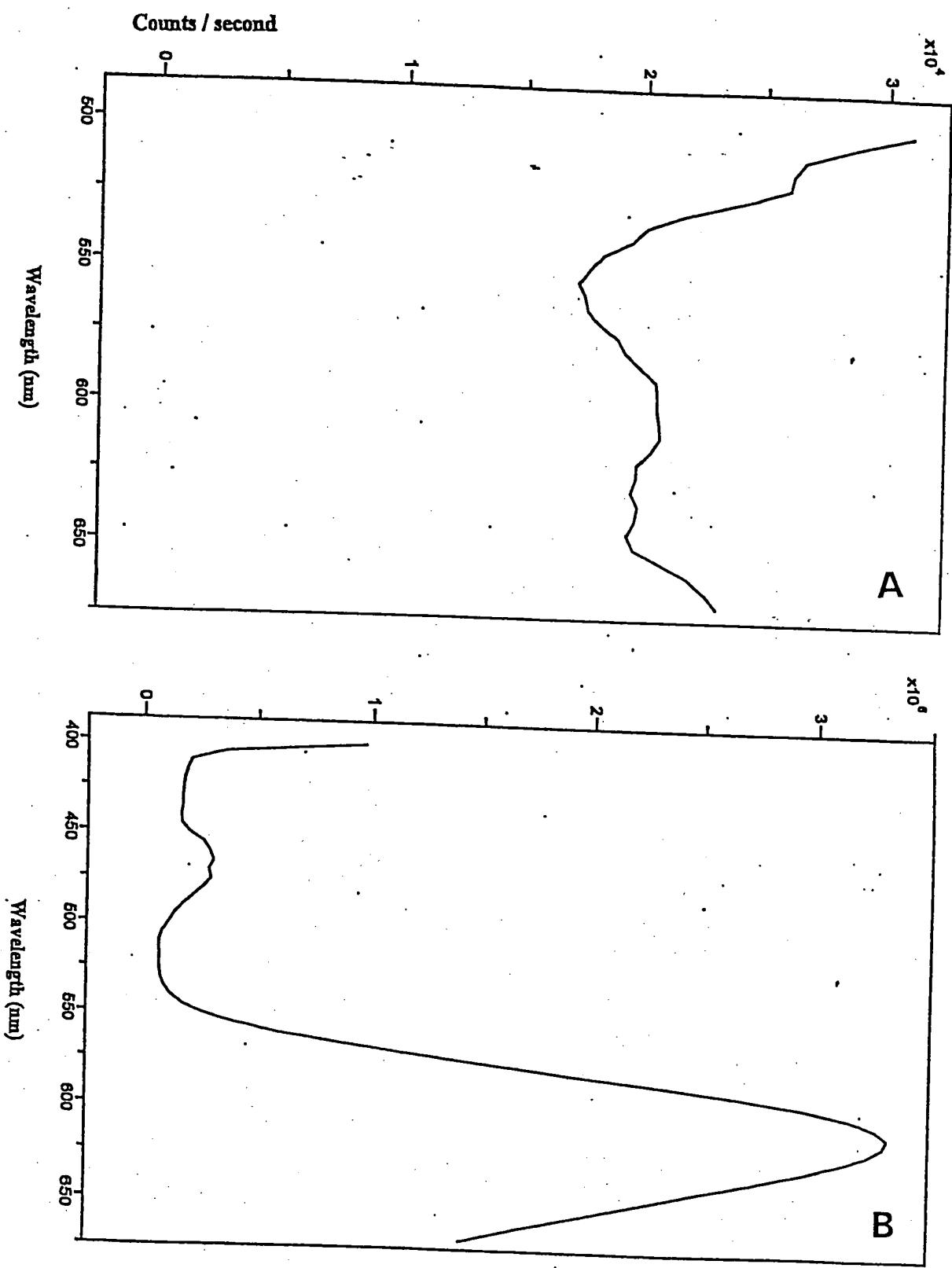


Figure 9



Illumination at 472 nm
Figure 10



HIV Anti-sense Amplicon

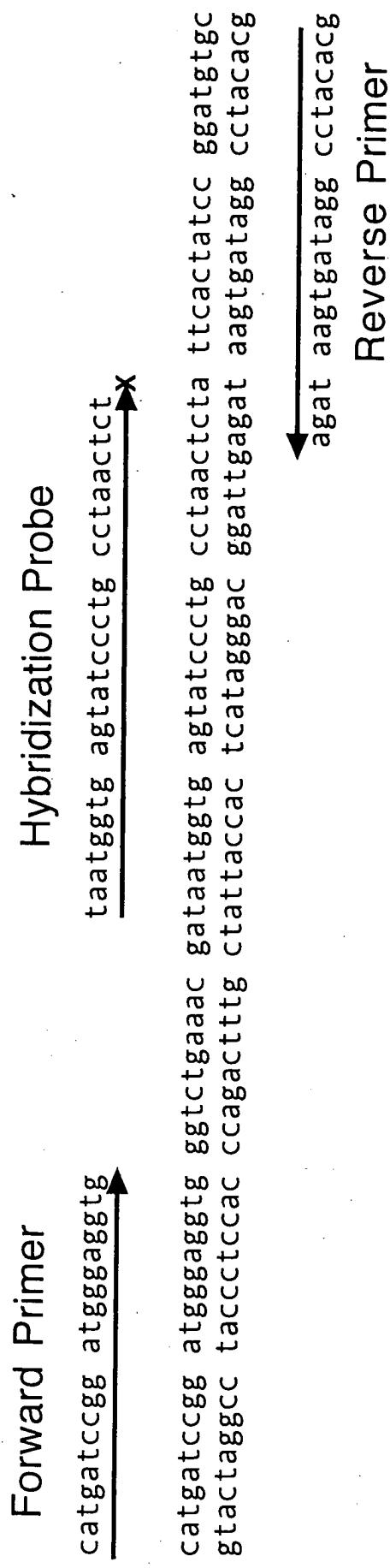
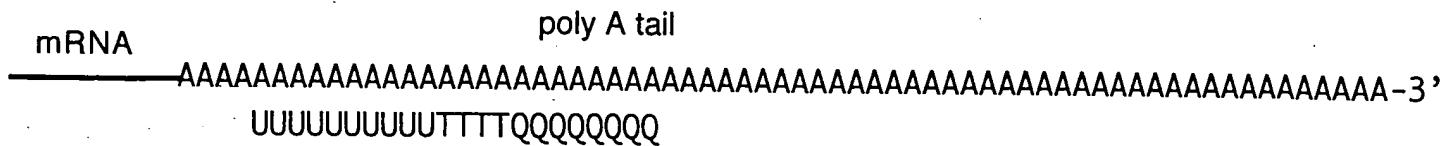


Figure 12

A) Binding of CNAC to poly A tail



CNAC

B) elimination of poly A segment by RNase H

↓

RNase H

mRNA



CNAC

C) Incorporation of primer binding site by template dependent extension of analyte

↓

Reverse Transcriptase

mRNA



CNAC

D) Removal of CNAC and binding of primer with promoter sequence

mRNA

GGGGGGGG-promoter-5'



Figure 13

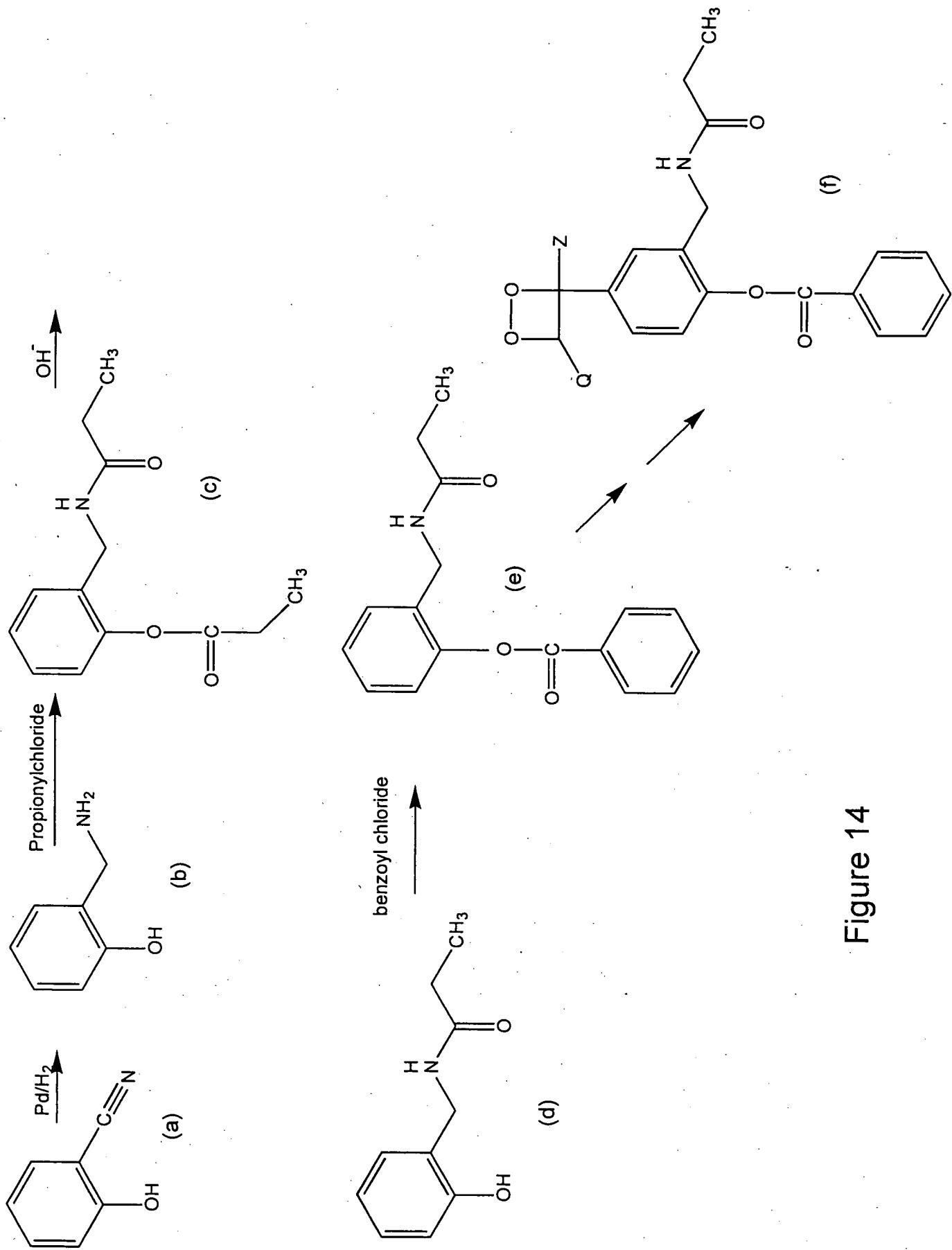


Figure 14

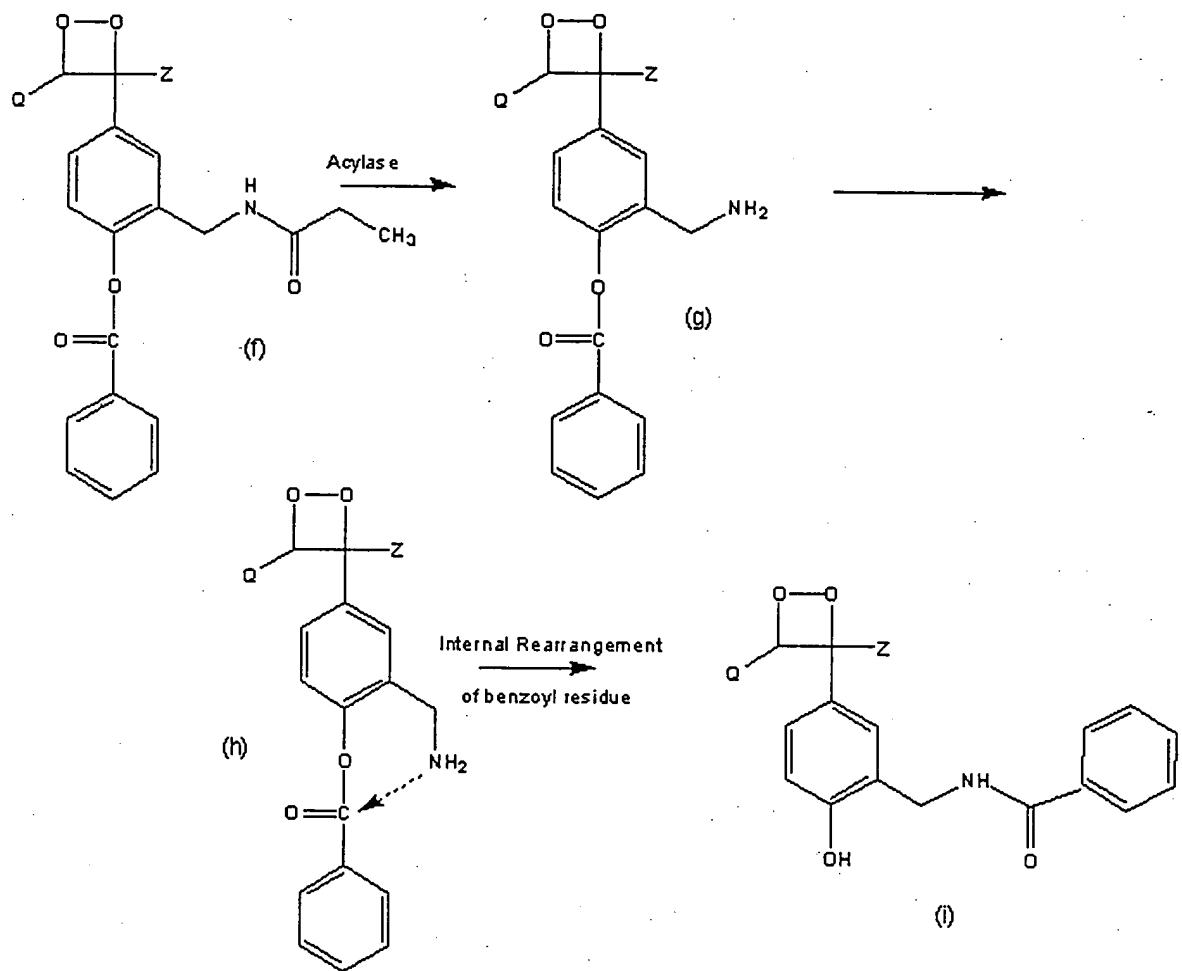


Figure 15